

AMENDMENT

In the Specification:

Delete paragraph 3 on page 4 and substitute the following:

A1
-- In related embodiments, the invention provides a composition for treating a tissue disorder associated with a response-to-injury process or proliferating cells in a mammal comprising the compositions described in the aforementioned methods of treating. According to one aspect of the present invention there is provided a polypeptide comprising an amino acid sequence selected from the group consisting of human P16 (SEQ ID NO: 26), P32 (SEQ ID NO: 81), murine S3 (SEQ ID NO: 73), human S3 (SEQ ID NO: 74), murine S7 (SEQ ID NO: 75), human S7 (SEQ ID NO: 76), murine V2 (SEQ ID NO: 77) and human V2 (SEQ ID NO: 78). --

Delete paragraph 4 on page 4 and replace it with the following:

A2
-- According to another aspect of the present invention, there is provided a pharmaceutical composition for the treatment of an inflammatory neurological disorder comprising an amino acid sequence selected from the group consisting of P16 (SEQ ID NO: 26), P32 (SEQ ID NO: 81), murine S3 (SEQ ID NO: 73), human S3 (SEQ ID NO: 74), murine S7 (SEQ ID NO: 75), human S7 (SEQ ID NO: 76), murine V2 (SEQ ID NO: 77) and human V2 (SEQ ID NO: 78). --

Delete paragraph 5 beginning at the bottom of page 4 and continuing as paragraph 1 on page 5 and replace it with the following:

A3
-- According to a further aspect of the invention there is provided a pharmaceutical composition for the treatment of diabetes mellitus comprising an amino acid sequence selected from the group consisting of P16 (SEQ ID NO: 26), P32 (SEQ ID NO: 81), murine S3 (SEQ ID NO: 73), human S3 (SEQ ID NO: 74), murine S7 (SEQ ID NO: 75), human S7 (SEQ ID NO: 76), murine V2 (SEQ ID NO: 77) and human V2 (SEQ ID NO: 78). --

Delete paragraph 2 on page 5 and replace it with the following:

4
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-- According to yet another aspect of the present invention, there is provided a pharmaceutical composition for the treatment of a disease selected from the group consisting of arthritis, inflammatory dermatosis inflammatory bowel disease, cancer, kidney fibrosis, inflammatory lung disease, obesity, lupus, cardiovascular disease and diabetes mellitus, the pharmaceutical composition comprising an amino acid sequence selected from the group consisting of human P32 (SEQ ID NO: 81), murine S3 (SEQ ID NO: 73), human S3 (SEQ ID NO: 74), murine S7 (SEQ ID NO: 75), human S7 (SEQ ID NO: 76) and murine V2 (SEQ ID NO: 77). --

Delete paragraph 3 on page 5 and replace it with the following:

5
A
-- According to another aspect of the present invention, there is provided an antibody which binds to a polypeptide comprising an amino acid sequence selected from the group consisting of P16 (SEQ ID NO: 26), P32 (SEQ ID NO: 81), murine S3 (SEQ ID NO: 73), human S3 (SEQ ID NO: 74), murine S7 (SEQ ID NO: 75), human S7 (SEQ ID NO: 76), murine V2 (SEQ ID NO: 77), human V2 (SEQ ID NO: 78), murine V3 (SEQ ID NO: 79) and human V3 (SEQ ID NO: 83). --

Delete paragraph 4 on page 5 and replace it with the following:

6
A
-- According to yet another aspect of the present invention, there is provided a method for treating wounds comprising the step of administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising an amino acid sequence selected from the group consisting of P16 (SEQ ID NO: 26), P32 (SEQ ID NO: 81), murine S3 (SEQ ID NO: 73), human S3 (SEQ ID NO: 74), murine S7 (SEQ ID NO: 75), human S7 (SEQ ID NO: 76), murine V2 (SEQ ID NO: 77) and human V2 (SEQ ID NO: 78) and human V3 (SEQ ID NO: 83 and (b) an antibody to the polypeptide of (a). --

Delete paragraph 2 on page 6 and replace it with the following:

7
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-- According to a further aspect of the invention there is provided use of polypeptide comprising an amino acid sequence selected from the group consisting of P16 (SEQ ID NO: 26), P32 (SEQ ID NO: 81), murine S3 (SEQ ID NO: 73), human S3 (SEQ ID NO: 74), murine S7 (SEQ ID NO: 75), human S7 (SEQ ID NO: 76), murine V2 (SEQ ID NO: 77) and human V2 (SEQ ID NO: 78) and human V3 (SEQ ID NO: 83) for the treatment of an inflammatory neurological disorder. --

8
Delete paragraph 10 on page 8 and replace it with the following:

-- Figures 26A, 26B and 26C illustrate that HA binding peptides (SEQ ID Nos. 27, 56-58) including artificial mimics are able to block cell motility. --

Delete paragraph 4 on page 26 and replace it with the following:

-- **SEQ ID NO. 81: Human P32**

KQKIKHVVKLKDENSEQLKSEVSKLRCQLAKKK –

Delete paragraph 5 on page 26 and replace it with the following:

-- **SEQ ID NO: 82 Mouse P-32**

KQKIKHVVKLKDENSEQLKSEVSKLRSQVLVKKR –

Delete paragraph 2 on page 28 and replace it with the following:

-- SEQ ID NO. 83 Human V3

10
MQNLKQKFILEQQEREKLQQKELQIDSLQKEKELSSSLHQKLCSFQEEMAKEKNL
FEEELKQTLDELDKLQQKEEQAERLVKQLEEEAKSRAEELKLLEEKLGKEAELEK
SSAAHTQATLLLQEKYDSMVQSLEDVTAQFESYKALTASEIEDLKLENSSLQEKAV
AKAGKNAEDVQHQILATESSNQEYVRMLLDLQTKSALKETEIKEITVSFLQKITDLQ
NQLKQQEEDFRKQLEDEEGRKAEKENTTAELTEEINKWRLLYEELYNKTKPFQLQL
DAFEVEKQALLNEHGAAQEQLNKIRDSYAKLLGHQNLKQKIKHVVKLKDENSQK
SEVSKLRCQLAKKTK -

Delete paragraph 2 on page 52 and replace with the following:

11
-- Thus, within one embodiment methods are provided for treating inflammatory neurological diseases such as Parkinsons, comprising administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising the amino acid sequence BX7B (SEQ ID NO: 28) which binds HA; phage display selected peptides that bind HA such as polypeptides comprising P-15 (Sequence ID No. 70), P-16 (Sequence ID No. 26); P-32 (Sequence ID No. 81); and GAHWQFNALTVR (Sequence ID No. 72); (b) an antibody which binds on of the domains DI, D2, D3, D4 or D5 of RHAMM; (c) a peptide of less than 95 kD or 73 kd, comprising all or a portion of domains D1, D2, D3, D4 or D5 of RHAMM; and (d) a gene delivery vector which expresses antisense RHAMM, or, delivers an expresses any one of (a), (b), or (c), such that the disease is treated. --

Delete paragraph 2 on page 54 and replace with the following:

12
-- Thus, within one embodiment methods are provided for treating Alzheimer disease, comprising administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising the amino acid sequence BX7B

A12 covered

(SEQ ID NO: 28) which binds HA; phage display selected peptides that bind HA such as polypeptides comprising P-15 (Sequence ID No. 70), P-16 (Sequence ID No. 26); P-32 (Sequence ID No. 81); and GAHWQFNALTVR (Sequence ID No. 72); (b) an antibody which binds one of domains D1, D2, D3, D4, or D5 of RHAMM; (c) a peptide of less than 95 kD or 73 kD, comprising all or a portion of domains D1, D2, D3, D4, or D5 of RHAMM; and (d) a gene delivery vector which expresses antisense RHAMM, or, delivers and expresses any one of (a), (b), or (c), such that the disease is treated. --

Delete paragraph 3 on page 56 and continuing as paragraph 1 on page 57 and replace with the following:

A13

-- Thus, within one embodiment methods are provided for treating arthritis (e.g., rheumatoid arthritis or osteoarthritis), comprising administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising the amino acid sequence BX7B (SEQ ID NO: 28) which binds HA; phage display selected peptides that bind HA such as polypeptides comprising P-15 (Sequence ID No. 70), P-16 (Sequence ID No. 26); P-32 (Sequence ID No. 81); and GAHWQFNALTVR (Sequence ID No. 72); (b) and antibody which binds one of domains D1, D2, D3, D4, or D5 of RHAMM; (c) a peptide of less than 95 kD or 73 kD, comprising all or a portion of domains D1, D2, D3, D4 or D5 of RHAMM; and (d) a gene delivery vector which expresses antisense RHAMM or, delivers and expresses any one of (a), (b), or (c), such that the disease is treated. --

Delete paragraph 3 on page 58 and continuing as paragraph 1 on page 59 and replace with the following:

A14

-- Thus, within one embodiment methods are provided for treating osteoporosis, comprising administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising the amino acid sequence BX7B (SEQ ID NO: 28) which binds HA; phage display selected peptides that bind HA such as polypeptides comprising P-15 (Sequence ID No. 70), P-16 (Sequence ID No. 26); P-32 (Sequence ID No. 81); and GAHWQFNALTVR (Sequence ID No. 72);

19/14 concurred

(b) and antibody which binds one of domains D1, D2, D3, D4, or D5 of RHAMM; (c) a peptide of less than 95 kD or 73 kd, comprising all or a portion of domains D1, D2, D3, D4 or D5 of RHAMM; and (d) a gene delivery vector which expresses antisense RHAMM or, delivers and expresses any one of (a), (b), or (c), such that the disease is treated. --

Delete paragraph 3 on page 59 through paragraph 1 on page 60 and replace with the following:

15

-- Thus, within one embodiment methods are provided for treating multiple sclerosis, comprising administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising the amino acid sequence BX7B (SEQ ID NO: 28) which binds HA; phage display selected peptides that bind HA such as polypeptides comprising P-15 (Sequence ID No. 70), P-16 (Sequence ID No. 26); P-32 (Sequence ID No. 81); and GAHWQFNALTVR (Sequence ID No. 72); (b) and antibody which binds one of domains D1, D2, D3, D4, or D5 of RHAMM; (c) a peptide of less than 95 kD or 73 kd, comprising all or a portion of domains D1, D2, D3, D4 or D5 of RHAMM; and (d) a gene delivery vector which expresses antisense RHAMM or, delivers and expresses any one of (a), (b), or (c), such that the disease is treated. --

Delete paragraph 3 on page 60 and replace with the following:

16

-- Within another embodiment methods are provided for treating multiple sclerosis, comprising administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising the amino acid sequence of SEQ ID NO: 81, 73 to 77 which binds HA; and (b) an antibody to SEQ ID NO. 81, 73 to 77. The dosage range for these peptides varies from 0.001 mg/kg to 50mg/kg. --

Delete paragraph 3 on page 61 and replace with the following:

9/17
-- Thus, within one embodiment methods are provided for treating inflammatory dermatosis (e.g., psoriasis), comprising administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising the amino acid sequence BX7B (SEQ ID NO: 28) which binds HA; phage display selected peptides that bind HA such as polypeptides comprising P-15 (Sequence ID No. 70), P-16 (Sequence ID No. 26); P-32 (Sequence ID No. 81); and GAHWQFNALTVR (Sequence ID No. 72); (b) an antibody which binds one of domains D1, D2, D3, D4, or D5 of RHAMM; (c) a peptide of less than 95 kD or 73 kD, comprising all or a portion of domains D1, D2, D3, D4 or D5 of RHAMM; and (d) a gene delivery vector which expresses antisense RHAMM or, delivers and expresses any one of (a), (b), or (c), such that the disease is treated. --

Delete paragraph 2 on page 63 and replace with the following:

8/18
-- Thus, within one embodiment methods are provided for treating inflammatory bowel disease, comprising administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising the amino acid sequence BX7B (SEQ ID NO: 28) which binds HA; phage display selected peptides that bind HA such as polypeptides comprising P-15 (Sequence ID No. 70), P-16 (Sequence ID No. 26); P-32 (Sequence ID No. 81); and GAHWQFNALTVR (Sequence ID No. 72); (b) an antibody which binds one of domains D1, D2, D3, D4, or D5 of RHAMM; (c) a peptide of less than 95 kD or 73 kD, comprising all or a portion of domains D1, D2, D3, D4 or D5 of RHAMM; and (d) a gene delivery vector which expresses antisense RHAMM or, delivers and expresses any one of (a), (b), or (c), such that the disease is treated. --

Delete paragraph 2 on page 64 and replace with the following:

8/19
-- Thus, within one embodiment methods are provided for treating the above described diseases (e.g. lupus, diabetes mellitus, or, kidney fibrosis), comprising administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising the amino acid sequence BX7B (SEQ ID NO: 28) which

19 concluded
binds HA; phage display selected peptides that bind HA such as polypeptides comprising P-15 (Sequence ID No. 70), P-16 (Sequence ID No. 26); P-32 (Sequence ID No. 81); and GAHWQFNALTVR (Sequence ID No. 72); (b) an antibody which binds one of domains D1, D2, D3, D4, or D5 of RHAMM; (c) a peptide of less than 95 kD or 73 kd, comprising all or a portion of domains D1, D2, D3, D4 or D5 of RHAMM; and (d) a gene delivery vector which expresses antisense RHAMM or, delivers and expresses any one of (a), (b), or (c), such that the disease is treated. --

Delete paragraph 1 on page 67 and replace with the following:

20
-- Thus, within one embodiment methods are provided for treating the aforementioned diseases associated with wounds / wound healing, comprising administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising the amino acid sequence BX7B (SEQ ID NO: 28) which binds HA; phage display selected peptides that bind HA such as polypeptides comprising P-15 (Sequence ID No. 70), P-16 (Sequence ID No. 26); P-32 (Sequence ID No. 81); and GAHWQFNALTVR (Sequence ID No. 72); (b) an antibody which binds one of domains D1, D2, D3, D4, or D5 of RHAMM; (c) a peptide of less than 95 kD or 73 kd, comprising all or a portion of domains D1, D2, D3, D4 or D5 of RHAMM; and (d) a gene delivery vector which expresses antisense RHAMM or, delivers and expresses any one of (a), (b), or (c), such that the disease is treated. --

Delete paragraph 2 on page 68 and replace with the following:

21
-- Thus, within one embodiment methods are provided for treating inflammatory / proliferative diseases associated with surgical procedures or intervention (e.g., restenosis, stenosis, medical implants and the like), comprising administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising the amino acid sequence BX7B (SEQ ID NO: 28) which binds HA; phage display selected peptides that bind HA such as polypeptides comprising P-15 (Sequence ID No. 70), P-16 (Sequence ID No. 26); P-32 (Sequence ID No.

A21 CONCLUDED

81); and GAHWQFNALTVR (Sequence ID No. 72); (b) an antibody which binds one of domains D1, D2, D3, D4, or D5 of RHAMM; (c) a peptide of less than 95 kD or 73 kd, comprising all or a portion of domains D1, D2, D3, D4 or D5 of RHAMM; and (d) a gene delivery vector which expresses antisense RHAMM or, delivers and expresses any one of (a), (b), or (c), such that the disease is treated. --

Delete paragraph 1 on page 70 and replace with the following:

-- Thus, within one embodiment methods are provided for treating the above-noted atherosclerotic diseases, comprising administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising the amino acid sequence BX7B (SEQ ID NO: 28) which binds HA; phage display selected peptides that bind HA such as polypeptides comprising P-15 (Sequence ID No. 70), P-16 (Sequence ID No. 26); P-32 (Sequence ID No. 81); and GAHWQFNALTVR (Sequence ID No. 72); (b) and antibody which binds one of domains D1, D2, D3, D4, or D5 of RHAMM; (c) a peptide of less than 95 kD or 73 kd, comprising all or a portion of domains D1, D2, D3, D4 or D5 of RHAMM; and (d) a gene delivery vector which expresses antisense RHAMM or, delivers and expresses any one of (a), (b), or (c), such that the disease is treated. --

Delete paragraph 3 on page 71 and replace with the following:

-- Thus, within one embodiment methods are provided for treating patients undergoing tissue or cell transplantation, comprising administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising the amino acid sequence BX7B (SEQ ID NO: 28) which binds HA; phage display selected peptides that bind HA such as polypeptides comprising P-15 (Sequence ID No. 70), P-16 (Sequence ID No. 26); P-32 (Sequence ID No. 81); and GAHWQFNALTVR (Sequence ID No. 72); (b) and antibody which binds one of domains D1, D2, D3, D4, or D5 of RHAMM; (c) a peptide of less than 95 kD or 73 kd, comprising all or a portion of domains D1, D2, D3, D4 or D5 of RHAMM; and (d) a gene delivery vector which expresses antisense RHAMM or, delivers and expresses any one of (a), (b), or (c), such that the disease is treated. --

Delete paragraph 2 on page 74 and replace with the following:

24
-- Thus, within one embodiment methods are provided for treating cancer and other metaseses, comprising administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising the amino acid sequence BX7B (SEQ ID NO: 28) which binds HA; phage display selected peptides that bind HA such as polypeptides comprising P-15 (Sequence ID No. 70), P-16 (Sequence ID No. 26); P-32 (Sequence ID No. 81); and GAHWQFNALTVR (Sequence ID No. 72); (b) and antibody which binds one of domains D1, D2, D3, D4, or D5 of RHAMM; (c) a peptide of less than 95 kD or 73 kd, comprising all or a portion of domains D1, D2, D3, D4 or D5 of RHAMM; and (d) a gene delivery vector which expresses antisense RHAMM or, delivers and expresses any one of (a), (b), or (c), such that the disease is treated. --

Delete paragraph 2 on page 75 and replace with the following:

25
-- Thus, within one embodiment methods are provided for treating chronic and acute distress syndromes, comprising administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising the amino acid sequence BX7B (SEQ ID NO: 28) which binds HA; phage display selected peptides that bind HA such as polypeptides comprising P-15 (Sequence ID No. 70), P-16 (Sequence ID No. 26); P-32 (Sequence ID No. 81); and GAHWQFNALTVR (Sequence ID No. 72); (b) and antibody which binds one of domains D1, D2, D3, D4, or D5 of RHAMM; (c) a peptide of less than 95 kD or 73 kd, comprising all or a portion of domains D1, D2, D3, D4 or D5 of RHAMM; and (d) a gene delivery vector which expresses antisense RHAMM or, delivers and expresses any one of (a), (b), or (c), such that the disease is treated. --

26
Delete paragraph 4 on page 76 and replace with the following:

-- Thus, within one embodiment methods are provided for treating or preventing diabetes mellitus, comprising administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising the amino acid sequence BX7B (SEQ ID NO: 28) which binds HA; phage display selected peptides that bind HA such as polypeptides comprising P-15 (Sequence ID No. 70), P-16 (Sequence ID No. 26); P-32 (Sequence ID No. 81); and GAHWQFNALTVR (Sequence ID No. 72); (b) and antibody which binds one of domains D1, D2, D3, D4, or D5 of RHAMM; (c) a peptide of less than 95 kD or 73 kD, comprising all or a portion of domains D1, D2, D3, D4 or D5 of RHAMM; and (d) a gene delivery vector which expresses antisense RHAMM or, delivers and expresses any one of (a), (b), or (c), such that the disease is treated. --

27
Delete paragraph 3 on page 77 and replace with the following:

-- Within another embodiment methods are provided for diabetes comprising administering to a patient a compound selected from the group consisting of (a) a polypeptide comprising the amino acid sequence of SEQ ID NO: 81, 73 to 77 which binds HA; and (b) an antibody to SEQ ID No. 81, 73 to 77. The dosage range for these peptides varies from 0.001 mg/kg to 50mg/kg.

28
Delete paragraph 2 on page 99 and replace it with the following:

-- C. Western analysis.

Cells were plated at 50% confluence and grown for 6-24 h. Then, monolayers were washed with cold PBS, lysed in RIPA buffer and subjected to SDS-PAGE. Separated proteins were transferred onto nitrocellulose membranes (BioRad) using a Transfer buffer. Non-specific binding sites were blocked with 5% defatted milk in Tris buffer. RHAMMv4 antibody was prepared against following sequence: VSIEKEKIDEK (SEQ ID NO. 84). RHAMMv5 antibody was prepared against following sequence: QERGTQDKRIMQDME (SEQ ID NO: 21). Membranes were washed three times with TBST, then incubated with